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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,791	08/08/2006	Gisbert Engel	Q96399	6395

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EXAMINER	
SHABMAN, MARK A	

ART UNIT	PAPER NUMBER
2856	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/597,791	ENGEL ET AL.	
	Examiner	Art Unit	
	MARK SHABMAN	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 January 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *17-32* is/are pending in the application.

4a) Of the above claim(s) *27-32* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 August 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/8/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicants remarks filed on 7 January 2009 have been reviewed and taken into consideration. As such, claims 17-26 will be examined herein. Claims 27-32 are withdrawn from consideration.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17, 19, 21 and 23-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding **claim 17**, line 1 of the claim comprises the limitation of "testing the integrity (density) of objects". It is unclear as to whether the integrity consists solely of a density reading of if this is merely an example of one form of integrity.

Regarding claims 17 and 19, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding **claim 19**, the claim appears to comprise both apparatus and method limitations in that the device for testing comprises features including "[the packages] are

being continuously moved by a package conveyor through the testing station" which appears to be a method step. Parts c), d) and e) of the claim comprise the same issue. It has been held that a single claim which claims both an apparatus and the method steps of using the apparatus is indefinite under 35 USC 112 second paragraph. Ex parte Lyell, 17 USPQ2d 1548.

Regarding **claim 20**, the claim recites that the coverin hood "can be placed on the package the claim recites that the covering hood is connected to a vacuum source "preferably via a suction line or a suction pipe." It is unclear if the hood must be connected by one of these two, or if the two elements can be connected by any means desired.

Regarding **claim 21**, the term "in particular" is indefinite as it is not clear whether the pressure loading is required in the package conveyor or not.

Regarding **claim 23**, the term "in particular" is indefinite as it is not clear whether the carriage on a horizontal servo axle is required in the apparatus or not. Further, it is not clear as to how the linear drive which runs parallel to the package conveyor allows for up and down movement of the suction pipe.

Regarding **claim 24**, the term "in particular" is indefinite as it is not clear whether the sensor means are required or not. Additionally, the term "preferably laser sensors" is indefinite as it is unclear whether the laser sensors are a required part of the apparatus or just preferred.

Regarding **claim 25**, the term "in particular" is indefinite as in the case with claim 24.

Regarding **claim 26**, the terms "in particular" and "preferably" are indefinite as previously described.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 17-19, 21, and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fraim US Patent 6,167,751 (hereinafter referred to as Fraim).

Regarding **claim 17**, Fraim discloses a method for testing of sealed packages for leaks as described in the specification and shown in figures 5 and 6 of the drawings in which objects 100 or cassettes of objects 400 are transported along a conveyor 600. As they are transported they pass through a testing chamber 505, 605 in which the packages are tested. The testing chamber is running along (operating) with the packages on the conveyor to prevent stoppage of the conveyor during testing and increase the speed at which the testing occurs. One method of testing as disclosed by Fraim is that of a vacuum test in which a negative pressure if applied within the testing chamber and any deformations of the package under test are scanned and recorded by a sensor or sensors which is more thoroughly described with relation to figures 1 and 3. In order for a vacuum to be applied to the chamber, all sides must be sealed off, or

there would be no change in pressure differential within the chamber as the air exiting due to the vacuum action would be replaced by air from outside of the chamber. Fraim further describes a reject station 510 in which faulty objects are sorted out and removed from the conveyor system.

Regarding **claim 18**, figure 5 shows how a group of objects comprising longitudinal rows and transverse rows can be assembled for simultaneous detection (as in the description of figure 5) in the testing chamber. Each package is checked by an associated sensor 425 for defects while faulty objects are removed from the group. It would have been obvious to one of ordinary skill in the art at the time of invention to have replaced any faulty objects with an intact object, especially in the case of packaging foods for example where each package would require the same number of objects prior to sealing.

Regarding **claim 19**, Fraim discloses a device for testing the integrity of objects wherein objects 100 or cassettes of objects 400 are transported along a conveyor 600 and pass through a testing chamber 505, 605 in which the packages are tested. The testing chamber comprises a testing station as seen in figures 5 or 6 in which the packages are temporarily located during the test process. One method of testing as disclosed by Fraim is that of a vacuum test in which a negative pressure if applied within the testing chamber and any deformations of the package under test are scanned and recorded by a sensor or sensors which is more thoroughly described with relation to figures 1 and 3. In order for a vacuum to be applied to the chamber, all sides must be

sealed off, or there would be no change in pressure differential within the chamber as the air exiting due to the vacuum action would be replaced by air from outside of the chamber. Thus a sealing means must be present in the system for forming a closed testing station. Fraim further describes a reject station 510 in which faulty objects are sorted out and removed from the conveyor system. The sensors of the system are then used to determine whether a product has a defect or not while under reduced pressure in the test chamber.

Regarding **claim 21**, the conveyor of Fraim forms a flat supporting structure for the packages as claimed wherein the area of testing can be pressure-loaded by the pressure changing devices.

Regarding **claim 24**, the sensors of the Fraim reference are provided for detecting the shape deformation or change in the region of the test chamber. As the type of sensor is only recited as preferable, any sensor for accomplishing the same task is deemed equivalent to that which is claimed.

Regarding **claim 25**, Fraim discloses means for detecting faulty packages and conveying them away from the formation testing group by means of a burst of air. It would have been obvious to one of ordinary skill in the art at the time of invention to have used any means to remove the faulty packages such as a second conveyor or equivalent to ensure that the faulty objects do not get packaged. The process of replacement could be handled by similar means.

Regarding **claim 26**, an element for delimiting the testing chamber is present in the Fraim reference as the conveyor on which the objects sit. The conveyor is moved at the conveying speed of the packages to be tested. The chambers as seen in figure 6 all comprise air permeable suction regions on top which would allow for air to be removed by a suction unit (vacuum) not shown.

Claims 20, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fraim as applied to claim 19 above, and further in view of Hass US Patent 3,751,972 (hereinafter referred to as Hass).

Regarding **claim 20**, the apparatus as seen in figure 6 of Fraim has a testing chamber which on one end is sealed by the conveyor but does not explicitly disclose the test chamber as a "hood" as claimed. Hass teaches a method and apparatus for testing the sealing of an object in which test objects are placed under testing hood connected to a vacuum line as seen in figure 2 which can be moved up and down by an actuator 19 for accepting packages and sealing off the chamber. It would have been obvious to one of ordinary skill in the art at the time of invention to have combined the teachings of Hass with those of Fraim to allow for the testing of the objects to occur directly on the conveyor for increased speed in testing.

Regarding **claim 22**, Fraim does not explicitly disclose a hood as claimed. Hass discloses a method and apparatus for testing the sealing of an object in which test objects are placed under testing hood as seen in figure 2 which can be moved up and down by an actuator 19 for accepting packages and sealing off the chamber. It would

have been obvious to one of ordinary skill in the art at the time of invention to have combined the teachings of Hass with those of Fraim to allow for the testing of the objects to occur directly on the conveyor for increased speed in testing. Further, it would have been obvious to one of ordinary skill in the art at the time of invention to have allowed for horizontal movement of the chamber as well, in case the objects under test are not perfectly within the test area and minor adjustments needed to made to the positioning of the hood.

Regarding **claim 23**, the covering hood of Hass includes a suction pipe in the pressure line shown that can be moved up and down on a linear drive by actuator 19. The suction pipe is not "upright" as claimed, however a simple relocation to the top of the hood would allow for this to occur.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARK SHABMAN whose telephone number is (571)270-3263. The examiner can normally be reached on M-F 8:00am - 4:30pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. S./
Examiner, Art Unit 2856
/Hezron Williams/
Supervisory Patent Examiner, Art Unit 2856